WHAT IS CLAIMED IS:

1   1.   A system for assessing viewer response to television

2 programming that can be associated with information describing the

3 programming content, said system comprising:

4   a receiver for receiving and displaying television

5 programming;

6   at least one sensor for sensing a physical reaction by

7 the viewer viewing the displayed programming and generating a

8 signal representative of the physical reaction; and

9   a processor for receiving the sensor signal and analyzing

10 it to determine if it can be associated with at least one

11 recognizable viewer response, whereupon the processor associates

12 the recognized response with a descriptive information relating to

13 the program that was being displayed when the physical reaction was

14 sensed.

1 2.   The system of claim 1, further comprising a memory device for

2 storing the association between the programming description and

3 sensed reaction as a viewer preference.

1 3. The system according to claim 1, wherein the at least one

2 sensor comprises a plurality of sensors.

1 4. The system of claim 3, further comprising a sensor-signal

2 receiver for receiving the signals generated by at least some of

3 the plurality of sensors.

1 5. The system of claim 4, wherein the sensor-signal receiver

2 combines the received sensor signals so that the processor may

3 analyze an aggregation of sensors signals.

  6. The system of claim 1, wherein the at least one sensor is

2 a video image capturing device.

1 7. The system of claim 6, further comprising a video

2 processor in communication with the video camera, the video

3 processor comprising an image library for comparing to video images

4 received from the video camera.

1 8. The system of claim 6, further comprising a video

2 recorder for recording the images captured by the video camera.

1   9.   The system of claim 1, wherein the at least one sensor is

2   a microphone for picking up vocalizations made by the viewer.

1   10.   The system of claim 1, further comprising an

2   environmental sensor for sensing a change in the viewing

3   environment and transmitting environmental information to the

4   processor for use in analyzing viewer physical reactions.

1   11.   A method of assessing viewer response to television

2   programming that includes one or more distinct segments, said

3   method comprising the steps of:

4   providing a receiver on which the viewer may view the

5   programming;

6   monitoring at least one viewer physical condition; and

7   associating a perceived physical-condition status with a

8   viewer response.

1   12.   The method of claim 11, wherein in the monitoring step

2   includes monitoring a plurality of viewer physical conditions.

1   13.   The method of claim 11, wherein the physical condition

2   status includes a change in the physical condition relative to a

3   baseline level, the change being perceived during the monitoring

4   step.

1   14.   The method of claim 11, wherein the physical condition is

2   body temperature.

1   15.   The method of claim 11, wherein the physical condition is

2   heart rate.

1   16.   The method of claim 11, wherein the monitoring step is

2   performed by an image-capturing device for capturing images of the

3   viewer viewing the programming.

1   17.   The method of claim 16, further comprising the step of

2   providing a video processor for receiving the video images captured

3   by the video camera and comparing them to reference data to

4   interpret a viewer movement represented in the captured images.

1   18.   The method of claim 11, further comprising the steps of:

2   determining at least one distinguishing characteristic of

3   a displayed programming segment;

4   associating a viewer response corresponding to a physical

5   condition perceived during the display of the programming segment

6   with a viewer preference level; and

7   applying   the   preference   level   to   enhance   program

8   selection.

10   19.   The method of claim 18, wherein program selection is

11   enhanced by providing a notification that specified future

13   programming will contain at least one segment possessing the at

14   least one distinguishing characteristic.

17   20.   The method of claim 18, wherein the program selection is

2   enhanced by inserting into a program a segment possessing the at

3   least one distinguishing characteristic.

1   21.   The   method   of   claim   18,   wherein   the   program

2   distinguishing characteristic is derived from electronic program

3   guide (EPG) information provided with the television programming.

1   22. The method of claim 18, wherein the program segment

2   distinguishing characteristic is derived from audio, video and text

3   signal properties of television programming.

1   23. The method of claim 11, further comprising the steps

2   of:

3   providing a recorder coupled to the receiver to record

4   selected program segments;

5   determining when a program segment is being received

6   that corresponds to a pre-selected viewer response previously

7   associated with a physical-condition status; and

8   automatically recording the program segment.

1   24. The method of claim 11, further comprising the steps

2   of:

3   determining when a program segment is being received

4   that corresponds to a pre-selected viewer response previously

5   associated with a physical-condition status;

6   extracting information related to the program segment

7   from the television programming; and

8   automatically displaying the information on the

9   receiver.

1   25.   The method of claim 11, wherein the monitored physical

2 condition viewer physical condition is a biometric response.

1   26.   The method of claim 25, wherein the biometric response

2 is galvactic skin response.

1   27.   The method of claim 11, wherein the monitoring step

2 comprises monitoring a visually observable response.

1   28.   The method of claim 27, wherein the visually

   observable response is related to the gaze of the viewer.

1   29.   The method of claim 28, wherein the gaze-related

2 response includes the direction of the viewer's gaze.

1   30.   The method of claim 28, wherein the gaze-related

2 response includes the duration of the viewer's gaze in a certain

3 direction before changing to a different direction.

1   31.   The method of claim 27, wherein the visually

2 observable response includes the furrowing of the viewer's brow.

1   32.   The method of claim 31, wherein the monitoring step

2   includes measuring the depth of any furrows in the viewer's

3   brow, tending to indicate confusion or lack of understanding.

1   33.   The method of claim 11, wherein the associating step

2   is performed at least in part by using the Hidden Markov Model

3   technique.

1   34.   A method of assessing listener response to audio

2 programming that includes one or more distinct segments, said

3 method comprising the steps of:

4   providing a receiver having a speaker for presenting

5 the audio programming to the listener;

6   monitoring at least one listener physical condition;

7 and

8   associating a perceived physical-condition status with

9 a viewer response.

11   35.   The method of claim 34, wherein the monitoring step

12 comprises monitoring a audibly observable response.

13   36.   The method of claim 34, wherein the audibly observable

14 response is listener laughter.

1   37.   The method of claim 34, wherein the audibly observable

2 response is the inflection of a listener's vocalization, tending

3 to indicate a question has been enunciated.

1   38.   The method of claim 34, wherein the associating step

2 is performed at least in part by using the Hidden Markov Model

3 technique.